**Introduction**: Prospective borrowers seeking Water Infrastructure Finance and Innovation Act (WIFIA) credit assistance must complete and submit a letter of interest to the U.S. Environmental Protection Agency (EPA). Based on the information provided in the letter of interest, EPA will invite selected prospective borrowers to submit an application for WIFIA credit assistance. EPA will only select those eligible projects that it expects to proceed to closing.

---

**Purpose**: Prospective borrowers submit the letter of interest materials to provide EPA with the necessary information to: 1) validate the eligibility of the prospective borrower and the prospective project; 2) perform a preliminary creditworthiness assessment; 3) perform a preliminary engineering feasibility assessment; and 4) evaluate the project against the selection criteria and identify which projects EPA will invite to submit applications.

---

**Format**: To be considered for WIFIA credit assistance, prospective borrowers must submit a letter of interest that describes: 1) the prospective borrower and the plans for the proposed project(s); 2) the proposed financial plan; 3) the status of the reports and studies required for the project(s); and 4) how the project meets the selection criteria of the WIFIA credit program. Please reference the latest Notice of Funding Availability (NOFA), the WIFIA program handbook, and frequently asked questions (FAQ) available at http://www.epa.gov/wifia for additional instructions and information.

Responses to all of the questions should be included in this form. Upon completion, the total length of the letter of interest form should not exceed 50 pages, excluding any attachments. Font size should not be smaller than 11-point Calibri.

---

**Selection:** Due to the wide variety of projects eligible for WIFIA assistance, in some cases EPA may request additional information to supplement the letter of interest so it may complete its analysis. EPA will invite some eligible prospective borrowers to submit applications based on its selection process.

---

**Submission:** Letters of interests must be submitted to EPA by the deadline stated in the Notice of Funding Availability (NOFA). Source documents may be draft or preliminary. Please provide the most recent version available at the time of submission.

The documents may be submitted in two ways:

(1) Email the documents as attachments to wifia@epa.gov.
(2) Upload the documents to EPA's SharePoint site. To be granted access to the SharePoint site, prospective borrowers can request access to SharePoint by emailing wifia@epa.gov. Requests to upload documents must be made in advance of the deadline as outlined in the NOFA.

Upon receipt, EPA will provide a confirmation email. If you have questions on completing this letter of interest, please consult the WIFIA website (www.epa.gov/wifia) or contact the WIFIA program office at wifia@epa.gov.

**Confidential Business Information (CBI):** A prospective borrower may assert a business confidentiality claim covering part or all of the information submitted to EPA as part of its letter of interest, in a manner consistent with 40 C.F.R. 2.203, 41 Fed. Reg. 36902 (Sept. 1, 1976), by placing on (or attaching to) the information a cover sheet, stamped or typed legend, or other suitable form of notice employing language such as trade secret, proprietary, or company confidential. The prospective borrower should also state whether it desires confidential treatment until a certain date or until the occurrence of a certain event. Information covered by a business confidentiality claim will be disclosed by EPA only to the extent and only by means of the procedures set forth under 40 C.F.R. Part 2, Subpart B. Information that is not accompanied by a business confidentiality claim when it is received by EPA may be made available to the public by EPA without further notice to the prospective borrower.

More information about CBI is available in the WIFIA program handbook and frequently asked questions (FAQ) available at http://www.epa.gov/wifia.

---

**Burden:** The public reporting and recordkeeping burden for this collection of information is estimated to average 50 hours per response. Send comments on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, included through the use of automated collection techniques to the Director, Regulatory Support Division, U.S. Environmental Protection Agency (2822T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed form to this address.

---

**Warning**: Falsification or misrepresentation of information or failure to file or report information required to be reported may be the basis for denial of financial assistance by EPA. Knowing and willful falsification of information required to be submitted and false statements to a Federal Agency may also subject you to criminal prosecution. See, for example, 18 U.S.C. §1001.

---

# LETTER OF INTEREST

*Provide the following information in this form or as narrative answers. Narrative answers can reference source documents (include the name of the document and relevant pages or sections). Provide any referenced documents as attachments.*

## Section A: Prospective Borrower Information

**1.** Legal name of prospective borrower:

City of Phoenix

**2.** Other names under which the prospective borrower does business:

None

**3.** Department and division name:

Water Services Department, Water Engineering Division

**4.** Business street address:

200 West Washington St., 8th Floor, Phoenix, AZ 85003

**5.** Mailing street address (if different from above):

Not Applicable

**6.** Website:

https://www.phoenix.gov/waterservices

**7.** Employer/taxpayer identification number (EIN/TIN):

86-6000256

**8.** Dun and Bradstreet Data Universal Number System (DUNS) number:

183491133

**9.** Facility Registry Service (FRS) number, if available:

N/A

**10.** Type of entity (pick one):

- (●) Corporation
- ( ) Partnership
- ( ) Joint Venture
- ( ) Trust
- ( ) Federal, State, or Local Governmental Entity, Agency, or Instrumentality
- ( ) Tribal Government or Consortium of Tribal Governments
- ( ) State Infrastructure Finance Authority

**11.** Describe the organizational structure of the proposed borrower, including structures such as a partnership, joint venture or trust. If multiple parties are involved in the project's construction, maintenance, and operation, describe the project's risk allocation framework.

The City of Phoenix Water Services Department (WSD) operates as an enterprise within the City of Phoenix (the "City" or "Phoenix"). WSD is headed by Director Kathryn Sorensen. The WSD Director reports to Deputy City Manager Karen Peters. Karen Peters reports to Assistant City Manager Milton Dohoney, Jr. The Assistant City manager reports to City Manager Ed Zuercher. Ed Zuercher reports to the Mayor and City Council.

Director Kathryn Sorensen has an Assistant Director, Troy Hayes. Troy Hayes manages the work of four Deputy Directors including Deputy Director Darlene Helm. Darlene Helm is the Deputy Water Services Director over the Water Engineering Division.

Deputy Director Darlene Helm has worked for the Water Services Department as a project manager for over 15 years and oversees the Remote Facilities Team, which is managed by Nikhil Parekh. Nikhil Parekh is familiar with the water system and all the City requirements for booster pump stations and water transmission mains as well as the internal procurement and contracting procedures for the City of Phoenix. Nikhil Parekh will provide contract administration, timely City decisions, input on Program requirements, and technical reviews of the work associated with the development and preparation of the construction documents. Phoenix has selected a Program Manager to perform program management and engineering services required to organize, coordinate, provide technical advice, and oversee the necessary resources required to conduct the design, construction, permitting, and commissioning work associated with the Zone 3D and 4A Improvements Program (the "Program" or the "Project"). The City selected Brown and Caldwell to serve as Program Manager, which has successfully served in a design and construction oversight role on similar projects for the City.

Phoenix has selected seven engineering firms to provide design services and construction administration oversight in the next few months. These services include preparing a set of construction documents which consist of 4 new booster pump stations, 3 pressure reducing valve stations, 8 miles of 60-inch water transmission main, and 2 miles of 42-inch water transmission

main. The Program improvements are listed later in this Letter of Interest ("LOI") in response to question B4 and are titled Improvement I through Improvement X for purposes of this LOI.

The City has also selected seven CM@R (construction manager at risk) contractors who will prepare a design-phase cost estimate and schedule, assist the design engineers with field demolition, mechanical and electrical conflict issues, provide recommendations for pipeline routing and termination points, and participate in the City's Disparity Goal Program. Additionally, the CM@R contractors will prepare a Guaranteed Maximum Price (GMP) for submission which will include quantity take-offs, subcontractor bid scopes, and a minimum of three solicited bids for all defined work activities.

Brown and Caldwell has been tasked with managing the overall schedule and budget for the Program. They have developed a master schedule with input from all seven engineering firms and CM@R contractors. They are in charge of ensuring each Improvement segment in the Program meets the schedule because all segments are needed to make the Program work. The Program kick-off meeting was held on April 8, 2019 and they have started meeting monthly with the engineering firms. At these meetings, they will be discussing any schedule or budget changes.

The City also has an assigned Project Manager, Clayton Freed, who facilitates review efforts, meetings with City staff, coordination with other departments and decisions needed from the City with the assistance of the Team Leader Nikhil Parekh, and Deputy Director Darlene Helm. The Project Manager meets and/or communicates several times a week with Brown and Caldwell to review project status, discuss decision points, discuss coordination efforts and meet with design consultants. The Project Manager provides oversight to the Program Manager and the overall Program.

**12.** If the prospective borrower is not a public entity or in the case of the prospective borrower being a state infrastructure finance authority, the sub-recipient(s) is not a public entity, is the project(s) publicly sponsored? Please explain.

Not Applicable

**13.** Identify the month and year the prospective borrower will submit an application. (Assume invitations to apply will be issued approximately 90 days from letter interest submission deadline and the application will generally require a draft Request for Proposals or 30% design documents and a preliminary rating letter on the proposed credit structure.)

If the Zone 3D and 4A Improvements Program Project is selected by the EPA to apply for a WIFIA loan, the City intends to submit a complete application package within 60 days of project selection (estimated December 2019, assuming EPA selection by October 2019). We have included in this LOI the majority of information that is necessary for an application and we are ready to submit any additional information that is needed upon selection. Based on the City's experience working

with the EPA on the Water Main WIFIA application, we are confident that we can support an expedited application submission, review and approval process.

**14.** Identify the month and year the prospective borrower wants to close its WIFIA loan.

The City is ready to work with the US EPA to expedite closing of a WIFIA loan for the Zone 3D and 4A Improvements Program Project. Our advisor Montague DeRose and Associates will use their prior work with the EPA to streamline the legal negotiations and would hope to close in less than 180 days following the EPA's invitation to submit an application (estimated April 2020 assuming EPA selection by October 2019).

## Section B: Project Plan

**1.** Project name *(for purposes of identification assign a short name to the project):*

City of Phoenix – Zone 3D and 4A Improvements Program (the "Program" or the "Project")

**2.** Provide existing National Pollutant Discharge Elimination System (NPDES) and/ or Public Water System (PWS) number(s) (if applicable).

PWS # AZ-04-07-025

**3.** Project website(s):

None

**4.** Provide a brief description of the project(s) for which the prospective borrower is seeking funding (major project scope items such as capacity, diameter and length, treatment components, and other design features). Limit the description to the elements included in the estimated total projects costs in Question C2. (Word Limit: 500).

The water supply source for the northern part of Phoenix is primarily Colorado River water that is transported to Phoenix from the Colorado River through the Central Arizona Project (CAP) canal. There is potential for restrictions on Colorado River water available to Phoenix due to long–term drought conditions. In order to ensure that the City can provide a reliable water supply, an alternate supply is needed for the areas served with Colorado River water. Alternate supply sources exist in the form of ground water wells located throughout the City. However, north Phoenix is generally higher in elevation than south Phoenix, and at present, WSD has very limited ability to move water from well sources spread throughout the City to its northern parts. The project that is the subject matter of this LOI will install both boosters and water mains which will interconnect the north and south systems and enable the City to move water from wells throughout the southern part of the City to areas at higher elevation that are presently served predominantly with Colorado River water. The project provides the northern part of the City with access to groundwater located in lower elevations to the south by constructing booster pumps and water mains that will facilitate pumping of water north.

An internal modeling effort was completed which analyzed alternatives to sustain a projected demand shortage during an outage at Lake Pleasant Water Treatment Plant and Union Hills Water Treatment Plant (which treat Colorado River water to supply north Phoenix). The selected alternative identified several major system improvements, which encompass the Program, and are listed below:

- 3D-R12 Pressure Reducing Valve Station (60 Million Gallons Daily) at Central Avenue and Deer Valley Road (Improvement I)
- 4A-B9 Booster Pump Station (60 Million Gallons Daily) at Central Avenue and Deer Valley Road (Improvement II)

- 4A-B10 Booster Pump Station (60 Million Gallons Daily) at 24th Street Water Treatment Plant (Improvement III)
- 4A-B11 Booster Pump Station (40 Million Gallons Daily) at 32nd St and Bell Road (Improvement IV)
- 4A-Pipeline 60" water transmission main from 24th Street Water Treatment Plant to 32nd St and Bell Road (Improvement V)
- 3D-Pipeline Upgrade 13,000 LF of 42" water transmission main to replace existing 36" water transmission main (Improvement VI)
- 3D-B2 Booster Station Capacity Upgrade at Deer Valley Water Treatment Plant from 25 Million Gallons Daily to 40 Million Gallons Daily (Improvement VII)
- 1-B5 (65 Million Gallons Daily) and 2A-B13 (45 Million Gallons Daily) Booster Pump Stations at Deer Valley Water Treatment Plant (Improvement VIII)
- 1-R4 Pressure Reducing Valve (20 Million Gallons Daily) at Deer Valley Water Treatment Plant (Improvement IX)
- 1-R8 Pressure Reducing Valve (60 Million Gallons Daily) at 24th St Water Treatment Plant (Improvement X)

The goal is to have all the improvements operational by the end of calendar year 2023.

The design and construction of the Program will be contracted separately through the services of one Program Manager team, seven Design Engineer teams and seven CM@R teams, as selected by the City based on their qualifications.

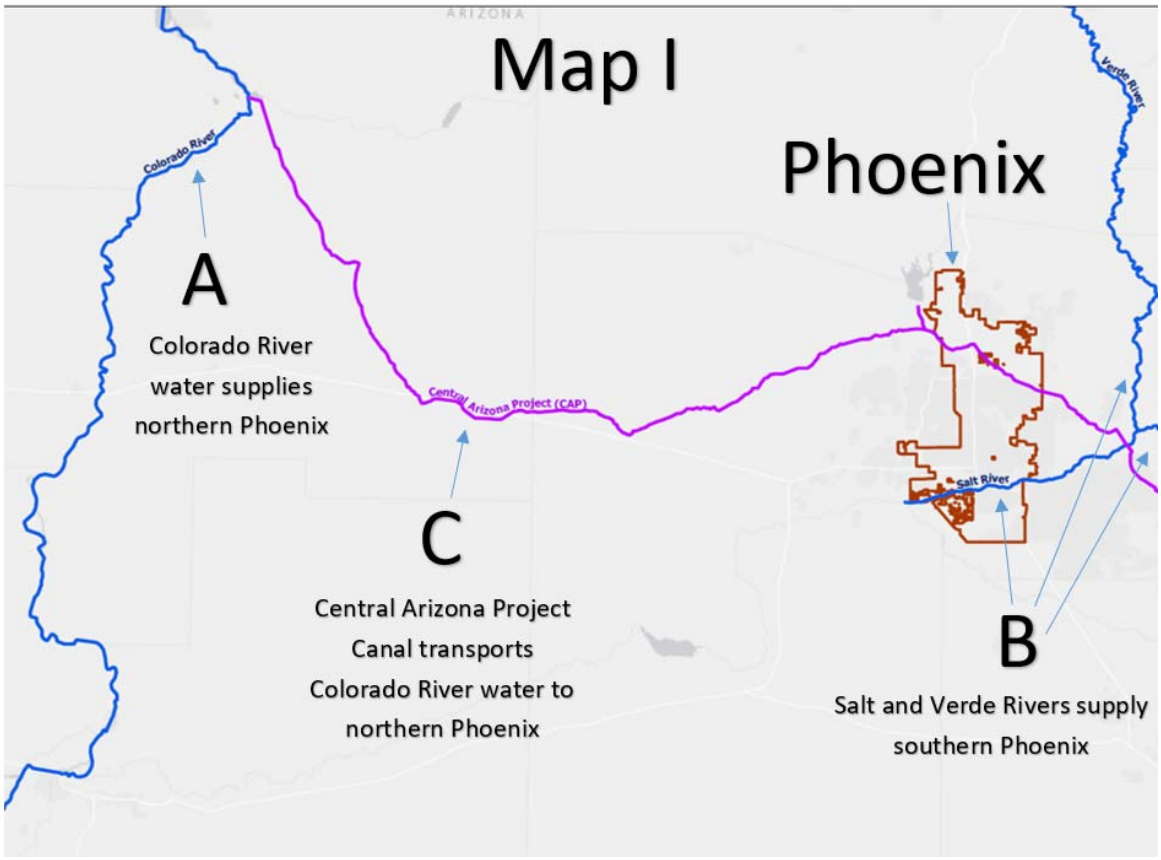
**5.** Describe the project's purpose (including quantitative or qualitative details on public benefits the project will achieve). If the loan contains more than one project, describe the common purpose that the projects share (i.e. addressing sanitary sewer overflows or improving drinking water quality).

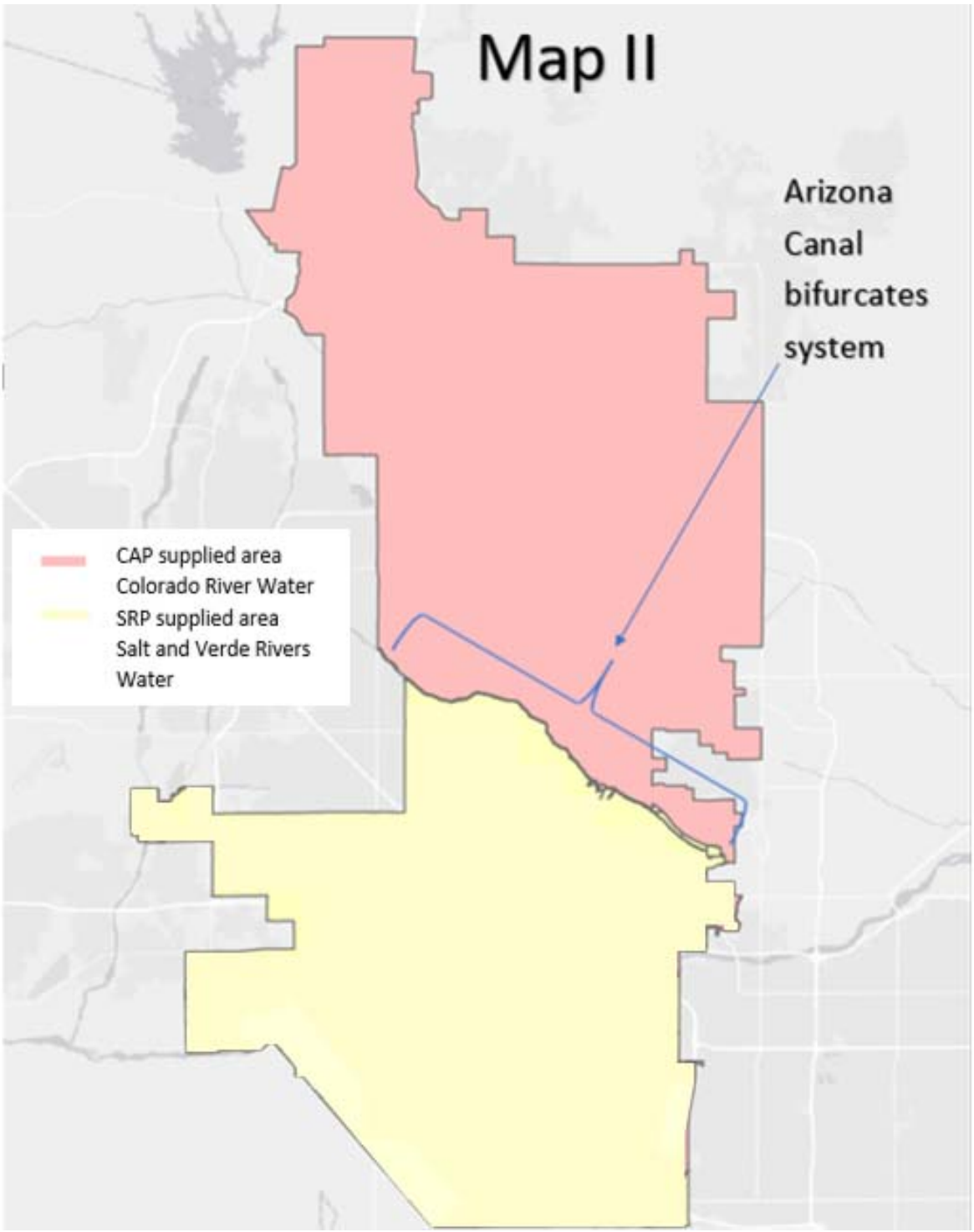
The purpose of this project is to interconnect the northern part of Phoenix's 520 square mile service area, presently supplied with Colorado River water delivered through the Central Arizona Project, with the southern part served with water from the Salt River Project (SRP), to ensure our ability to reliably serve our northern population in the event of reduced availability of Colorado River water. Phoenix's original potable water system was based upon the Verde and Salt River water delivered to the SRP service area. Colorado River water from the CAP became available in the 1980s and has fueled north Phoenix's explosive growth. These rivers and their pathways to Phoenix are shown in Map I below. Per federal contract, SRP water can only be delivered to the yellow areas shown on Map II below, while Colorado River water goes to the pink areas. Today, Phoenix's population of almost 1.7 million receives roughly 60 percent of its water from the SRP, about 40 percent from the CAP, and a very small amount from groundwater.

Map II shows in greater detail the area served with water sourced from the Colorado River, specifically the area north of the Arizona Canal. The Arizona Canal delineates these areas. The network of transmission and distribution pipes in the north has limited connections with the

network serving the area south of the Arizona Canal. The northern part of Phoenix is higher in elevation which requires boosters for the movement of water from wells in the southern part of Phoenix to the north. This project would provide new mains that would create interconnections between the northern and southern transmission and distribution systems and also provide boosters that would be necessary for movement of southern groundwater to the north.

The uncertainty of future Colorado River water supplies requires proactive planning. Should Colorado River water not be available in a quantity sufficient to meet customer needs, Phoenix would be unable to adequately provide water to the northern portion of its service area. The currently available resources, both water and infrastructure, are not adequate to fully mitigate the loss of Colorado River water. The public benefit of the project will be infrastructure that assures the efficient transmission and distribution of potable water to customers beyond the boundaries of the Salt River Project for the mitigation of reduced Colorado River supplies.




Map II
Arizona Canal bifurcates system
CAP supplied area
Colorado River Water
SRP supplied area
Salt and Verde Rivers Water

**6.** Describe the location of the project(s); specify if the location is within an existing facility. Include a project map(s) for all project components or sub-projects, if available. Include location address(es), and/or latitude and longitude details for all project components or sub-projects.

A project map is included as Attachment A.

**7.** County(s) project(s) will serve:

Maricopa County

**8.** Population served by the project(s):

1.615 million

**9.** Total population served by system:

1.615 million

**10.** Total population served by system at project completion:

1.615 million

**11.** Type of project delivery method (i.e., design-build, construction manager at-risk, design-bid-build) that is planned for this project(s):

Construction Manager at Risk (CM@R)

**12.** Present the overall project schedule start and end dates for key milestones and costs in the provided tables. For WIFIA loans with one project, fill out Row 1. For WIFIA loans with multiple projects, fill out and create as many rows as needed. Provide the detailed project schedule(s) and engineer's cost estimate(s) as attachments.

| Schedule | | | | |
|---|---|---|---|---|
| Project Name | Planning | Design | Permitting | Construction |
| Zone 3D and 4A Improvements Program (Improvements I-X) | 10/1/2016 - 3/31/2017 | 3/31/2019 - 10/31/2020 | 8/1/2020 - 12/31/2020 | 7/1/2021 - 12/31/2023 |

| Costs | | | | | |
|---|---|---|---|---|---|
| | Planning | Design | Construction - Administration and Inspection | Construction | Other |
| Program Management | $ - | $ 6,100,000 | $ 3,000,000 | $ - | $ - |
| 3D-R12 Improvement I | $ - | $ 645,563 | $ 820,000 | $ 8,189,332 | $ 959,874 |
| 4A-B9 Improvement II | $ 37,887 | $ 3,402,500 | $ 2,800,000 | $ 28,000,000 | $ 2,785,976 |
| 4A-B10 Improvement III | $ 95,082 | $ 3,382,500 | $ 2,750,000 | $ 27,500,000 | $ 2,739,887 |
| 4A-B11 Improvement IV | $ 37,887 | $ 3,555,000 | $ 2,800,000 | $ 28,000,000 | $ 2,710,976 |
| 4A Pipeline Improvement V | $ - | $ 7,730,000 | $ 6,700,000 | $ 67,000,000 | $ 6,375,906 |
| 3D Pipeline Improvement VI | $ - | $ 897,500 | $ 750,000 | $ 7,500,000 | $ 871,333 |
| 3D-B2 Improvement VII | $ 76,015 | $ 2,585,000 | $ 2,550,000 | $ 25,500,000 | $ 2,555,531 |
| 1-B5 Improvement VIII | $ 76,015 | $ 4,164,250 | $ 3,245,000 | $ 32,450,000 | $ 3,206,166 |
| 1-R4 Improvement IX | $ 38,128 | $ 35,000 | $ 250,000 | $ 2,500,000 | $ 360,444 |
| 1-R8 Improvement X | $ 57,192 | $ 835,000 | $ 820,000 | $ 8,200,000 | $ 960,857 |

**13.** Provide any analysis (i.e. preliminary engineering reports, feasibility studies, siting studies, project plans, etc.) completed in support of the project(s) scope, cost, and schedule. List referenced documents below and provide as attachments.

- Pipeline Alignment Study 24th St Water Treatment Plant to 32nd St and Bell Road – provided as Attachment B.
- City of Phoenix Water Services Department Pipeline Alignment – 24th Water Treatment Plant to 32nd St and Bell Road – provided as Attachment C.

**14.** Briefly discuss any other issues that may affect the development and financing of the project(s), such as community support, pending legislation, or litigation.

No potential issues are anticipated that will significantly affect the development and financing of this project. The Project is currently being advertised for design and is planned to be funded by City Bonds.

**15.** Describe the authorizing actions (e.g., local vote, board vote, ordinance) that would need to occur to enter into a loan agreement with the WIFIA program.

The Phoenix City Council has already made the necessary authorizations to fund this Project with revenue bonds or other forms of indebtedness, which would include WIFIA loan funding. The City's Chief Financial Officer, Denise Olson, is delegated to approve, negotiate and execute the WIFIA loan agreement for Phoenix.

**16.** Describe the status of the environmental review plan. Provide relevant environmental review documents as attachments.

During the Design and Planning Phases of the Program, each segment is assessed for potential environmental and cultural impacts by City of Phoenix Environmental Staff. The appropriate permit processes are then initiated depending on the project impacts. During the design phase, coordination occurs with all affected utilities in the right-of-way, and permits are issued by those utilities, after any conflicts have been resolved in the design plans and the appropriate permit application requirements have been met. Maricopa County Environmental Services (as the local delegate of the Arizona Department of Environmental Quality) reviews the final design plans and issues construction permit approvals.

**17.** If the environmental review for the project is underway or complete, complete the following table to identify the anticipated impacts and mitigations. Mark a "X" in the appropriate column to identify the Impacts Anticipated for each Resource Type and, if applicable, provide a short explanation of the mitigations.

| Resource Type | Anticipated Impacts | | | Mitigations |
|---|---|---|---|---|
| | No Impact | Less Than Significant Impact | Potentially Significant Impact | |
| Water | ☐ | ☐ | ☒ | The 4A Pipeline will cross several 404 washes. Permit applications are being prepared, and where possible the crossings are being designed to go under existing culverts/drainage structures. |
| Biological | ☐ | ☐ | ☒ | Much of the 4A Pipeline will encroach on native Sonoran |

| | | | | |
|---|---|---|---|---|
| | | | | Desert landscape, and a salvage and restoration plan is being developed in conjunction with the design, as well as plans to protect and/or relocate habitats within the impact area. |
| Cultural | ☐ | ☒ | ☐ | Some historic sites (mines) are located in the project area, and impacts to these sites will be assessed as part of the design and the 404 permitting process. |
| Others as Applicable | ☐ | ☐ | ☒ | Public access to roads, parks and trails will be impacted by this project. Public Outreach to effected groups and stakeholders is in progress, as well as coordination with other City of Phoenix projects to minimize the overall disruption to the public. |

**18.** Describe the status of any additional permits and approvals that the project(s) may require. Add additional rows as needed.

| Major Permits or Approvals Required | Approving Authority | Status | Expected Approval Date |
|---|---|---|---|
| Right-of-way Encroachment Permit | Arizona Department of Transportation | Preparing Permit Application | Summer 2020 |
| Utility Permits | Various underground utilities | Ongoing Coordination | Summer 2020 |

**19.** If applicable, specify if a new or relocated discharge to surface or groundwater is expected or new or relocated water intakes is expected.

Not applicable

**20.** If applicable, describe community outreach efforts conducted to date and planned for the project(s).

The City of Phoenix has contracted with a program manager firm, Brown and Caldwell, who has a subcontract with a public outreach company, Central Creative. This company will send out flyers to all residents that are within a close proximity to the Project, coordinate public meetings with residents and stakeholders, complete business walks along the right-of-way alignment and maintain a public hotline phone number throughout the entire program. The company will also make verbal contact with each resident adjacent to new facilities to inform them of the Project and the phases of construction they can expect.

Further, as stated, the Phoenix City Council has already made the necessary authorizations to fund this Project which included adopting proposed water rate increases to help finance the Project. As part of the rate setting process, public input is gathered and presented before City Council. Water Services Department sent postcards to customers at the end of November 2018 to notify them of the planned rate increases to support this Project and other infrastructure plans. Moreover, WSD held multiple media appearances, provided information on social media, attended approximately 50 community meetings and held five open houses throughout Phoenix in the fall of 2018 to discuss the plan and obtain feedback. Moreover, the Phoenix Water Rate Advisory Committee reviewed the proposed rate increases supporting this Project, and the Project itself, to determine its necessity. The Water Rate Advisory Committee is made up of citizens appointed by City Council and are tasked with evaluating and reviewing the need for rate increases. The Committee spent a year reviewing information, conducting research, and attending meetings and unanimously recommended the water rate increases as necessary to support the Project.

Finally, most recently in March 2019, Phoenix City Council authorized the creation of a water conservation task force, which will conduct public outreach and hold meetings on how best to use water in the City.

**21.** Describe any operation and maintenance contractual arrangements that may impact the operation of the project(s).

None. The City of Phoenix Water Distribution Division operates and maintains water mains and the associated equipment. This work is funded by Water System Revenues. Repairs are made as breaks, leaks and other issues occur. Preventative maintenance such as leak detection and valve & hydrant exercising and assessment is also performed on a routine basis. The frequency of water main breaks and leak repairs performed by this division is analyzed by the Water Main Replacement and Rehabilitation Program to influence capital project scope development and project urgency.

Further, the City of Phoenix Water Production Division operates and maintains the booster pump stations and associated equipment. This work is also funded by Water System Revenues.

Preventive maintenance is performed by this division on the equipment per manufacturers' recommendation to prolong the life of the equipment.

## Section C: Financing Plan

**1.** Provide a sources and uses of funds table for the construction period(s), including the proposed WIFIA assistance. Note any ineligible project costs. More information about eligible costs is available in the WIFIA program handbook.

| Sources Category | Estimated Dollar Value |
|---|---|
| 1. WIFIA Loan | $156,114,882 |
| 2. Revenue Bonds | $162,480,000 |
| 3. SRF Loan | n/a |
| 4. Borrower Cash | $6,919 |
| **TOTAL SOURCES** | **$318,601,801** |
| Uses Category | Estimated Cost |
| 1. Construction | $234,839,332 |
| 2. Design | $27,232,313 |
| 3. Planning | $418,206 |
| 4. Land Acquisition | $250,000 |
| 5. Other Capital Costs | n/a |
| 6. Contingency | n/a |
| **Total Capital Costs** | **$262,739,851** |
| 7. Other - Construction Administration and Inspection | $23,485,000 |
| 8. Other - Program Management | $9,100,000 |
| 9. Other - Procurement and Davis Bacon Labor Costs | $21,676,950 |
| 10. Other – Cost of Bond Issuance | $800,000 |
| 11. Other – Interest Costs on Revenue Bonds Through Substantial Completion Date | $800,000 |
| 12. Ineligible Costs (if applicable) | n/a |
| **TOTAL USES** | **$318,601,801** |

**2.** Estimated total eligible project costs (in dollars):

Up to $318,601,801.

**3.** Requested amount of the WIFIA loan (in dollars):

Up to $156,114,882 which is 49% of total eligible project costs.

**4.** Provide a narrative describing the project(s) plan of finance. This should include a discussion of the proposed financial structure and any existing ratings on the security pledged for repayment

of the WIFIA loan (if available) or a description of how the senior debt obligations will garner an investment-grade rating(s). Note availability and credit terms of other project funding sources. Include any preliminary revenue projections and explain underlying assumptions.

If the prospective borrower is a pool of eligible borrowers and projects, discuss the existing ratings and repayment schedules of the underlying borrowers and attach supporting documentation as available. Identify the single revenue pledge securing the WIFIA debt.

Attach recent rating agency reports, if available.

The City of Phoenix Charter requires the City Manager to submit a five-year capital improvement program (CIP) to City Council for approval prior to the adoption of the final budget for the year. The current 5-Year Water CIP (FY2020-24) has a preliminary cost totaling $1.68 billion in future expenditures with $373 million expected in FY2019. A total of $316,773,032 is expected to be spent on the Project over the next five years as shown below. The five-year total includes only part of the planning costs (that is, the numbers below do not include planning costs already expended) and none of the bond related costs.

| | FY2020 | FY2021 | FY2022 | FY2023 | FY2024 |
|---|---|---|---|---|---|
| Zone 3D and 4A Improvements Program | $33,521,750 | $350,000 | $281,966,282 | $525,000 | $410,000 |

During the design and construction phases, the City plans to issue debt to finance the Project. Debt may be in the form of junior lien revenue bonds or draws on the WIFIA loan, if available. The latest five-year plan adopted by the City assumes the Project is funded with long-term junior lien revenue bonds (21-Year amortizing bonds over a 25-Year financing term and a 4.50% assumed borrowing rate). To the extent WIFIA loan proceeds are made available to fund eligible Project costs, the City plans to replace a portion of future revenue bonds with draws on the lower cost WIFIA loan to fully fund the debt financed component of the Project. Access to a low-cost federal loan, such as the WIFIA loan, is expected to substantially reduce the overall financing cost of funding the Project in terms of avoided interest payments over the life of the financing.

The WIFIA loan program allows an applicant to finance up to 49% of eligible project costs using the WIFIA loan. Assuming WIFIA-eligible Project costs are $318,601,801 (which includes expected reimbursable costs spent to date and future bond issuance and interest costs), and using the maximum 49% allowable amount, the City can request up to $156,114,882 in a WIFIA loan. Presently, the City seeks to apply for a WIFIA loan in the amount of $156,114,882 which represents 49% of WIFIA eligible project costs.

The City plans on drawing on the WIFIA loan periodically as needed based on timing and projected expenditure requirements of the Project. The full amount of the WIFIA loan is expected to be drawn prior to the substantial completion date of the Project. As an alternative to drawing directly on the WIFIA loan and to the extent the strategy makes economic sense, the City may elect to

pursue and implement an interim funding strategy whereby the City issues Bond Anticipation Notes (BANs) or draws on its Commercial Paper facility to fund Project expenditures during construction. At the end of the construction period, the City will make a one-time draw on the WIFIA loan to retire the interim funding debt previously issued.

The WIFIA loan is expected to have a final maturity of up to 07/01/2057 (preliminary) which is approximately 35 years after the expected date of substantial completion of December 1, 2022. WIFIA loan interest may be capitalized during the construction drawdown phase of the financing. Repayment of the WIFIA loan is expected to begin on 07/01/2025 (preliminary) and will have an interest-only period between the date of initial draw on the WIFIA loan and the first principal repayment date. The WIFIA loan is expected to be structured to generate level debt service payments once repayment of principal starts.

The City proposes that the WIFIA loan be secured with a junior lien pledge of designated revenues of the Water System, on parity with the other currently outstanding junior lien revenue bonds of the Water System. Designated revenues are all operating revenues of the Water System after provision for payment of all expenses for operations and maintenance and senior lien obligations of the Water System. Currently, there are no senior lien debt obligations outstanding. The Water System junior lien bonds are rated AAA (stable) by S&P Global Ratings and Aa2 (stable) by Moody's Investors Service.

The Water System's high investment grade ratings are based on the Water System's strong debt service coverage as well as substantial liquidity and reserves. The Water System's credit profile is also characterized by a large and stable service area, a diverse water supply portfolio and strong fiscal management demonstrated by prudent rate increases, robust capital planning and financial forecasting as well as conservative debt management policies.

The Water System does not anticipate any changes to its current credit ratings as the Water System's proactive management team maintains many of the best practices deemed critical to supporting its credit quality. This includes regular monitoring and reporting of budget-to-actual performance, comprehensive capital planning and asset management, and a financial forecast that is based on realistic and conservative assumptions. Further, management is committed to internal financial policies which include setting rates to achieve annual debt service coverage of at least 2.0x and maintaining cash reserves equivalent to annual total revenue bond debt service. Further details on the City's financial forecasting is discussed in the response to Section D.8.

**5.** Describe the proposed credit terms of the WIFIA assistance:

a. Identify the security pledge:

As stated, it is contemplated that the WIFIA loan will be secured by the Designated Revenues from the Water System. Designated Revenues are defined as Operating Revenues after the provision of payment of all Expenses of Operation and Maintenance and all payments required on any senior lien obligation payable from Net Operating Revenues. Revenues include all income and revenue derived from the ownership, use or operation of the City of Phoenix Water System including monthly water billings, service

charges, connection fees (including development occupational fees), other charges for water service and the availability thereof, hydrant rentals and investment earnings, but excluding proceeds of special assessments, local, state or federal grants, capital improvement contract payments or other money received for capital improvements to the Water System.

b. State whether the WIFIA loan will be issued on a senior or subordinate lien. Note that all project debt must have the same security and priority as the WIFIA loan in a bankruptcy related event.

As stated, the WIFIA loan would be issued as a junior-lien bond secured by the Designated Revenues of the Water System; and the WIFIA loan would be on parity with currently outstanding junior lien revenue bonds and State of Arizona Water Infrastructure Finance Authority loans. The junior lien is subordinate to the senior lien; however, currently there are no senior lien obligations outstanding and there are no plans to add senior lien level debt.

c. If subordinate, please note that other project debt cannot enjoy senior security without WIFIA springing parity security rights.

d. Identify the maturity date (term):
The WIFIA loan is expected to have a final maturity of 07/01/2057 (preliminary) which is approximately 35 years (preliminary) after the expected date of substantial completion.

e. Identify the amortization structure (e.g. straight-line or sculpted):
The amortization schedule is based on straight-line amortization (preliminary).

**6.** Describe the prospective borrower's financial condition.

The City of Phoenix Water System serves more than 426,000 accounts in an approximately 543 square mile service area with a population of more than 1.615 million people. For fiscal year 2018-19, the System billed 123,489,000 hundred cubic feet (CCF) of water to retail customers. The ten largest customers accounted for 7.4% total retail water revenue. Of the ten largest customers, four are governmental entities and no private entity accounted for more than 0.5% of total retail water revenue.

Water rate schedules are adopted by the Mayor and the City Council by ordinance, subject to certain statutory limitations on the rates charged to non-residents. Since 1974, water rates have been reviewed annually, in accordance with the Council's adopted policy. Rates are adjusted as required to maintain the System's operations as a completely self-supporting enterprise, to maintain water revenue bond debt service coverage of 2.0 times or greater, and a minimum available fund balance equal to annual total revenue bond debt service. In the past twenty years, rates have been adjusted seventeen times. The most recent rate adjustment of 6% became effective March 1, 2019, with another Council approved 6% increase effective in 2020.

In fiscal year 2017-18, total revenues on a Non-GAAP budgetary basis exceeded $441 million with net revenues available for debt service of more than $248 million. FY 2018-2019 total revenues on a Non-GAAP budgetary basis is forecasted to increase to $443 million with net revenues available for debt service of more than $229 million. Additionally, the Water System maintains a strong available fund balance. The June 30, 2018 amount was over $92 million. The Water System's strong liquidity is evidenced by the enterprise having over 385 days cash on hand for FY 2018. Revenues under existing rates and charges are more than adequate to pay all debt obligations and keep the system in good working order.

The Water System junior lien bonds currently are rated AAA by S&P Global Ratings, and Aa2 by Moody's Investors Service (there are no senior lien obligations currently outstanding.) The high bond ratings are based on the Water System's strong financial management practices and policies, and high debt service coverage. For the most recently completed fiscal year, 2017-18, net revenues were 2.26 times junior lien debt service.

Every year the City completes a financial planning process and revises the Water System's pro forma. This process includes a rigorous review of the capital projects, operation and maintenance expenses and identifies any new costs for operations of new facilities over the upcoming ten-year period. The Finance Department determines and revises the financing plan to meet the identified needs of the Water Department. This includes bond financing and recommendations for future rate increases. This annual process allows the City to adjust future bond sales and rate increases to accommodate changes in the economy, changes in industry regulations or drought conditions. Forecasted rate increases are set with a goal to achieve a two times junior lien debt coverage ratio and to maintain fund balances that are equal to one year of junior lien debt service. Assumptions made in the following pro forma include issuing over $1.1 billion in debt at an interest rate of 4.5% for a term of 24 years. For fiscal years 2023-24 and 2024-25, debt service coverage is forecasted to decrease as additional P&I for the $1.1 billion of the new bond program come on-line. The debt service coverage is forecasted to return to targeted levels of two times by the end of the ten-year period.

Actual and forecasted junior lien debt service coverage ratios:

| Fiscal Year | Jr. Lien Coverage | |
|---|---|---|
| 2008-09 | 2.48 | Actual |
| 2009-10 | 1.62 | Actual |
| 2010-11 | 1.66 | Actual |
| 2011-12 | 2.34 | Actual |
| 2012-13 | 2.41 | Actual |
| 2013-14 | 2.08 | Actual |
| 2014-15 | 1.99 | Actual |
| 2015-16 | 2.40 | Actual |
| 2016-17 | 2.36 | Actual |
| 2017-18 | 2.26 | Actual |
| 2018-19 | 2.03 | Forecasted |
| 2019-20 | 2.09 | Forecasted |

| | | |
|---|---|---|
| 2020-21 | 1.82 | Forecasted |
| 2021-22 | 1.90 | Forecasted |
| 2022-23 | 1.99 | Forecasted |
| Source: City of Phoenix Finance Department | | |

**7.** Provide the year-end audited financial statement for the past three years, as available as an attachment. Provide the financial statement filenames in the textbox.

The City of Phoenix's Comprehensive Annual Financial Report (CAFR) is available on-line. Links to the most recent three years are provided below.
https://www.phoenix.gov/financesite/Documents/FINAL%20CAFR%202018.pdf
https://www.phoenix.gov/financesite/Documents/Final%20CAFR%202017.pdf
https://www.phoenix.gov/financesite/Documents/Final%20CAFR%202016.pdf
The Water System financial statements in the CAFR are Exhibits E-9, E-10, E-11, and E-12 in the referenced links.

**8.** Attach a financial pro forma which presents key long-term (at least 10 years) revenue, expense, and debt repayment assumptions for the revenue pledged to repay the WIFIA loan through the final maturity of the proposed WIFIA debt, including up to three years of historical data, as available. The pro forma should be provided in an editable Microsoft Excel format, not in PDF or "values" format. The pro forma should include at a minimum the following:

a. Sources of revenue
b. Operations and maintenance expenses
c. Dedicated source(s) of repayment
d. Capital expenditures
e. Debt service payments and reserve transfers, broken down by funding source and including the WIFIA credit assistance
f. Projected debt service coverage ratios for total existing debt and the WIFIA debt
g. The project's or system's debt balances broken down by funding sources
h. Equity distributions, if applicable

If available, include sensitivity projections for pessimistic, base and optimistic cases. A sample financial pro forma is available at https://www.epa.gov/wifia/wifia-application-materials-and-resources. Provide the financial pro forma filename in the textbox.

The City of Phoenix Water Department five-year (FY2019-23) Water Capital Improvement Program (CIP) with a preliminary operating capital cost (PAYGO) totaling $473 million. The City updates its five-year Water CIP each year and the plan is reviewed by City Council as part of the City's financial planning process. Current rate model projects the CIP expenditures in these five-years will be funded with both Water Revenues and debt either in the form of junior lien revenue bonds or state/federal loans.

As of January 1, 2019, the City of Phoenix Water Department has $1.116 billion of outstanding junior lien revenue bonds. There are no senior lien revenue bonds outstanding. Maximum annual debt service on existing junior lien bonds occurs in FY2024 and amounts to $113.32 million in annual debt service payments. In the next five fiscal years, the City of Phoenix Water Department is expected to issue $600 million of bonds to finance the debt funded portion of the five-year CIP. Maximum annual debt service is projected to increase to $165.4 million by FY2024. The City has also entered into a loan agreement with the Water Infrastructure Finance Authority of Arizona (WIFA). As of January 1, 2019, $2.97 million of loan principal amount remains outstanding.

The WIFIA loan is expected to be structured on the same junior lien as all existing junior lien revenue bonds. With an estimated Project Substantial Completion Date in December 2022, the WIFIA loan is expected to be structured with loan principal repayment beginning in July 2025 and ending in July 2057. Annual WIFIA loan principal and interest payments is expected to equal $7.02 million between FY2026 and FY2057. WIFIA's low cost of borrowing and allowance for debt sculpting are highly advantageous compared to conventional revenue bonds. The flexibility of deferring principal and interest up to five years, coupled with a low interest rate is projected to reduce the City's debt service payments in future years.

As shown on the table below, a combined Revenue Bond + WIFIA loan financing is projected to reduce debt service cost by roughly $32 million on a PV basis based on the City's standard assumptions for future debt financing which assume a 25-year financing term, 48-months of interest only payments and a 4.50% interest cost assumption. Through FY2024, the City is projected to save on average $4 million in interest cost annually, followed by on average $2.27 million in lower annual debt service payments from FY2025 through FY2045. Extending the WIFIA loan amortization schedule through July 2057 allows the City to reduce annual debt service payments beginning in FY2026 by approximately $4.6 million relative to the 100% Revenue Bond financed scenario. On a present value basis, the Revenue Bond + WIFIA Loan financing structure with an extended maturity is projected to offer the City an overall lowest cost of financing relative to the other two options while at the same time providing significant reduction in debt service costs along the way, in particular prior to FY2030 when existing junior lien debt service exceed $92 million before it drops to $42 million starting in FY2030.

# TOTAL PROJECTED DEBT SERVICE (DS)

| Fiscal Year | 100% Revenue Bond Financed | Revenue Bond + WIFIA Loan | Revenue Bond + WIFIA Loan (Extended Maturity) |
|---|---|---|---|
| 2020 | - | - | - |
| 2021 | 14,290,786 | 9,142,893 | 9,362,755 |
| 2022 | 14,290,786 | 10,731,363 | 11,137,263 |
| 2023 | 14,290,786 | 10,731,363 | 11,137,263 |
| 2024 | 14,290,786 | 10,731,363 | 11,137,263 |
| 2025 | 23,691,128 | 18,538,086 | 17,493,090 |
| 2026 | 23,691,128 | 21,565,560 | 19,069,669 |
| 2027 | 23,691,128 | 21,565,560 | 19,069,669 |
| 2028 | 23,691,128 | 21,565,560 | 19,069,669 |
| 2029 | 23,691,128 | 21,565,560 | 19,069,669 |
| 2030 | 23,691,128 | 21,565,560 | 19,069,669 |
| 2031 | 23,691,128 | 21,565,560 | 19,069,669 |
| 2032 | 23,691,128 | 21,565,560 | 19,069,669 |
| 2033 | 23,691,128 | 21,565,560 | 19,069,669 |
| 2034 | 23,691,128 | 21,565,560 | 19,069,669 |
| 2035 | 23,691,128 | 21,565,560 | 19,069,669 |
| 2036 | 23,691,128 | 21,565,560 | 19,069,669 |
| 2037 | 23,691,128 | 21,565,560 | 19,069,669 |
| 2038 | 23,691,128 | 21,565,560 | 19,069,669 |
| 2039 | 23,691,128 | 21,565,560 | 19,069,669 |
| 2040 | 23,691,128 | 21,565,560 | 19,069,669 |
| 2041 | 23,691,128 | 21,565,560 | 19,069,669 |
| 2042 | 23,691,128 | 21,565,560 | 19,069,669 |
| 2043 | 23,691,128 | 21,565,560 | 19,069,669 |
| 2044 | 23,691,128 | 21,565,560 | 19,069,669 |
| 2045 | 23,691,128 | 21,565,560 | 19,069,669 |
| 2046 | - | - | 7,024,812 |
| 2047 | - | - | 7,024,812 |
| 2048 | - | - | 7,024,812 |
| 2049 | - | - | 7,024,812 |
| 2050 | - | - | 7,024,812 |
| 2051 | - | - | 7,024,812 |
| 2052 | - | - | 7,024,812 |
| 2053 | - | - | 7,024,812 |
| 2054 | - | - | 7,024,812 |
| 2055 | - | - | 7,024,812 |
| 2056 | - | - | 7,024,812 |
| 2057 | - | - | 7,024,812 |
| **Total DS** | **554,676,838** | **491,186,278** | **525,958,755** |
| **PV Total DS** | **344,028,368** | **312,283,877** | **311,439,015** |

Securing debt service payments on existing junior lien Revenue Obligations and the potential WIFIA loan are Designated Revenues of the Water System. The City's Water Services Department and the Finance Department work together every year to recommend rate increases necessary to maintain a minimum water revenue bond debt service coverage of 2.0x or greater, and a minimum available fund balance equal to 1.0x annual total revenue bond debt service.

Between FY2019 and FY2024, Total Rate Revenues are projected to grow annually by 3.88% on a compounded annual growth rate (CAGR) basis. Over the same time period, Operating and Maintenance Expenses are projected to grow annually by 2.85% on a CAGR basis. Ending Operating Fund Balance is expected to increase slightly from $48.5 million in FY2019 to $52.5 million in FY2024. Over the next 10 years, Operating Fund Balance is expected to increase to $138.79 million by FY2029. The City Water Department also projects to maintain a $100 million Water Reserve that can be used to service debt service payments, if needed.

Total debt service, which includes debt service on existing bonds as well as future unissued bonds, is projected to increase from $115.2 million in FY2019 to $165.4 million in FY2024 and increase further to $203.8 million by FY2029. Future unissued bonds are assumed to have an approximately 25-year term which includes 48 months of interest only payments followed by approximately 21 years of principal and interest payments. Given the very strong rating of the City's junior lien water revenue bonds (Aa2/AAA), the pro forma tables assume a conservative rate of 4.50% for future borrowing costs. Debt service coverage is projected to remain strong over the next 10 years with debt service coverage on junior lien bonds ranging from a low of 1.74x to a high of 2.16x.

| 2 | | | | | | | WATER PROFORMA | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,000,000 | July 2, 2019 | | | | | | Abbreviated All Water Funds | | | | | |
| | | | | | | | (MILLIONS OF DOLLARS) | | | | | |
| | | 2017-18 Actual | 2018-19* Forecast | 2019-20 Forecast | 2020-21 Forecast | 2021-22 Forecast | 2022-23 Forecast | 2023-24 Forecast | 2024-25 Forecast | 2025-26 Forecast | 2026-27 Forecast | 2027-28 Forecast | 2028-29 Forecast |
| | **REVENUES** | | | | | | | | | | | | |
| | Metered Water Charge | 337.06 | 340.00 | 333.56 | 336.37 | 338.64 | 340.46 | 342.69 | 344.99 | 347.35 | 349.93 | 351.95 | 356.35 |
| | Environmental Charge | 34.43 | 34.36 | 33.91 | 34.33 | 34.76 | 35.20 | 35.64 | 36.08 | 36.53 | 36.99 | 37.45 | 37.92 |
| | Raw Water Charge | 26.45 | 26.66 | 26.13 | 26.46 | 26.79 | 27.12 | 27.46 | 27.81 | 28.15 | 28.51 | 28.86 | 29.22 |
| | **Rate Revenue** | 397.94 | 401.02 | 393.60 | 397.16 | 400.19 | 402.78 | 405.79 | 408.88 | 412.03 | 415.43 | 418.26 | 423.49 |
| | Rate Increase - Water Sales | - | 8.18 | 32.13 | 54.40 | 70.74 | 87.79 | 108.32 | 133.23 | 156.11 | 180.30 | 205.53 | 233.36 |
| | Rate Increase - Environmental | - | - | - | - | - | - | - | - | - | - | - | - |
| | Rate Increase - Raw Water | - | - | - | - | - | - | - | - | - | - | - | - |
| | **Rate Revenue Adjustments** | - | 8.18 | 32.13 | 54.40 | 70.74 | 87.79 | 108.32 | 133.23 | 156.11 | 180.30 | 205.53 | 233.36 |
| | **Total Rate Revenue** | 397.94 | 409.20 | 425.73 | 451.56 | 470.93 | 490.57 | 514.11 | 542.11 | 568.14 | 595.73 | 623.79 | 656.85 |
| | Water Resource Acquisition Fee | 2.49 | 2.33 | 2.26 | 2.18 | 2.19 | 2.19 | 2.22 | 2.26 | 2.29 | 2.32 | 2.36 | 2.39 |
| | Development Occupation Fee | 4.65 | 4.12 | 4.12 | 4.09 | 4.11 | 4.14 | 4.18 | 4.23 | 4.28 | 4.32 | 4.37 | 4.42 |
| | Other Revenue | 29.16 | 27.89 | 26.94 | 29.35 | 27.83 | 28.41 | 29.01 | 29.01 | 28.93 | 31.25 | 31.65 | 32.59 |
| | Recoveries | 7.23 | - | - | - | - | - | - | - | - | - | - | - |
| | **TOTAL OPERATING REVENUE** | **441.47** | **443.54** | **459.05** | **487.18** | **505.05** | **525.31** | **549.53** | **577.61** | **603.63** | **633.63** | **662.17** | **696.25** |
| | **EXPENDITURES** | | | | | | | | | | | | |
| | Operating & Maintenance | 192.98 | 214.49 | 221.73 | 230.86 | 238.36 | 245.76 | 253.94 | 262.25 | 270.89 | 279.82 | 288.73 | 297.93 |
| | Operating Capital (PAYGO) | 109.95 | 90.32 | 113.58 | 81.70 | 103.72 | 83.63 | 84.87 | 102.37 | 107.29 | 110.55 | 115.64 | 116.50 |
| | Other Expenses and Transfers | (1.70) | 24.29 | 25.46 | 26.48 | 27.79 | 28.80 | 29.48 | 30.17 | 30.87 | 31.60 | 32.34 | 33.10 |
| | **Total Operating Expenses** | 301.23 | 329.10 | 360.77 | 339.04 | 369.87 | 358.19 | 368.29 | 394.79 | 409.05 | 421.97 | 436.71 | 447.53 |
| | Net Revenue Available for Jr Lien Revenue | | | | | | | | | | | | |
| | **Bond Debt Service (Designated Revenues)** | **248.49** | **229.05** | **237.32** | **256.32** | **266.69** | **279.55** | **295.59** | **315.36** | **332.74** | **353.81** | **373.44** | **398.32** |
| | Debt Service - Existing | 110.05 | 113.20 | 120.57 | 113.63 | 113.64 | 113.64 | 113.65 | 110.77 | 110.78 | 92.90 | 92.90 | 92.90 |
| | Debt Service - Commercial Paper | - | 2.00 | 5.00 | - | 3.75 | 8.00 | - | 2.00 | 4.00 | 8.00 | - | - |
| | Debt Service - Future $ 1650 m | - | - | - | 27.00 | 27.00 | 27.00 | 51.75 | 70.88 | 70.88 | 70.88 | 110.91 | 110.91 |
| | **Total Debt Service** | 110.05 | 115.20 | 125.57 | 140.63 | 144.39 | 148.64 | 165.40 | 183.65 | 185.66 | 171.78 | 203.81 | 203.81 |
| | Net Transfers to/(from) Capital Funds | | - | - | - | - | - | - | - | - | - | - | - |
| | **TOTAL EXPENDITURES** | **411.28** | **444.30** | **486.34** | **479.67** | **514.26** | **506.83** | **533.69** | **578.44** | **594.71** | **593.75** | **640.52** | **651.34** |
| | **Net Increase/(Decrease)** | **30.19** | **(0.76)** | **(27.29)** | **7.51** | **(9.21)** | **18.48** | **15.84** | **(0.83)** | **8.92** | **39.88** | **21.65** | **44.91** |
| | **BEGINNING FUND BALANCE** | 62.58 | 92.77 | 92.01 | 64.72 | 72.23 | 63.02 | 81.50 | 97.34 | 96.51 | 105.43 | 145.31 | 166.96 |
| | **ENDING FUND BALANCE** | 92.77 | 92.01 | 64.72 | 72.23 | 63.02 | 81.50 | 97.34 | 96.51 | 105.43 | 145.31 | 166.96 | 211.87 |
| | Less: Restricted Funds | | | | | | | | | | | | |
| | Development Occupation Fund | 20.16 | 19.89 | 19.24 | 20.48 | 21.91 | 25.00 | 28.19 | 31.41 | 34.69 | 38.01 | 41.39 | 44.81 |
| | Water Resource Acquisition Fund | 21.35 | 23.67 | 11.76 | 13.40 | 12.34 | 14.44 | 16.66 | 18.92 | 21.21 | 23.53 | 25.88 | 28.27 |
| | **Total Restricted Funds** | 41.51 | 43.56 | 31.00 | 33.88 | 34.25 | 39.44 | 44.85 | 50.33 | 55.90 | 61.54 | 67.27 | 73.08 |
| | **OPERATING FUND BALANCE** | 51.26 | 48.45 | 33.72 | 38.35 | 28.77 | 42.06 | 52.49 | 46.18 | 49.53 | 83.77 | 99.69 | 138.79 |
| | Add: Water Reserve Fund | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| | **AVAILABLE FUND BALANCE** | **151.26** | **148.45** | **133.72** | **138.35** | **128.77** | **142.06** | **152.49** | **146.18** | **149.53** | **183.77** | **199.69** | **238.79** |
| | Month of Projected Increase | Mar | Mar | Mar | Mar | Mar | Mar | Mar | Mar | Mar | Mar | Mar | Mar |
| AAA | Percent Revenue Impact | 0.00% | 6.00% | 5.99% | 3.50% | 3.50% | 3.50% | 5.01% | 4.01% | 4.01% | 4.01% | 4.01% | 4.02% |
| 2.00 | Junior Lien Debt Coverage | 2.26 | 2.03 | 2.09 | 1.82 | 1.90 | 1.99 | 1.79 | 1.74 | 1.83 | 2.16 | 1.83 | 1.95 |
| 1.0 | Available Fund Balance to Debt Service | 1.4 | 1.3 | 1.1 | 1.0 | 0.9 | 1.0 | 0.9 | 0.8 | 0.8 | 1.1 | 1.0 | 1.2 |

*The Pro Forma will be updated at FY19 Year End with Actuals and the most recent CIP in Septemeber 2019.
It is anticipated FY19 revenues will be $20M to $30M less due to to abnormal weather parttern and El Nino.

**9.** Has the prospective borrower consulted with the applicable State Revolving Fund (SRF) program to procure SRF funding? If so, indicate whether it is applying for the SRF funding and where it is in the application process.

The City of Phoenix is not planning on consulting with the Water Infrastructure Finance Authority of Arizona for funding of the project.

## Section D: Selection Criteria

*For each selection criterion, provide a response explaining the extent to which the project seeking the WIFIA loan relates to the criterion. When applicable, reference attachments. Detailed definitions for each selection criteria are provided in the WIFIA program handbook available at www.epa.gov/wifia.*

1. **National or regional significance:** Describe the extent to which the project is nationally or regionally significant, with respect to the generation of economic and public benefits, such as (1) the reduction of flood risk; (2) the improvement of water quality and quantity, including aquifer recharge; (3) the protection of drinking water, including source water protection; and (4) the support of international commerce.

   Phoenix Water Services delivers renewable surface water supplies to customers so that groundwater can be saved for the future. Only a small fraction of all water currently delivered is from underground supplies. Unneeded surface water is injected into underground aquifers in order to store it for future needs. To address drought concerns, the City has developed a diverse portfolio of water supplies that includes Salt, Verde, and Colorado River water, groundwater reserves, and reclaimed wastewater for non-potable purposes.

   Colorado River supplies make up approximately 40% of the water delivered to homes and businesses in Phoenix. Conditions on the Colorado River are worsening and the Colorado River basin appears to be "aridifying." Because the Colorado River is over-allocated, shortage appears to be inevitable. The City has historically recharged excess supplies and as a result has accumulated long-term storage credits of 307,000 acre-feet and groundwater allowance credits of 3,699,500 acre-feet. Phoenix, through this Project, is developing infrastructure to be prepared for worst-case scenarios. This includes building large transmission mains, pump stations, and pressure-reducing valves to better move banked water supplies to areas of the water service territory traditionally served with Colorado River water. With these improvements in place, Phoenix can withstand worst-case scenarios on the Colorado River and ensure clean, reliable drinking water for generations to come.

   The improvements that make up this Project are necessary to the economic well-being of both the City and the surrounding metropolitan area. As there are approximately 660,000 Phoenix customers presently served with Colorado River water, and the ability to continue to provide service to this large population by use of stored underground water as an alternative to Colorado River water during a period of shortage is essential for the economic well-being of the region.

   The Project also has a nexus to regional economics because of its relevance to production of electricity by hydroelectric generation facilities on the Colorado River. This Project allows the City to displace surface water from the Colorado River with water previously injected underground during periods when a surplus of surface water existed. This can be done to preserve water in the Colorado River system including reservoirs with hydroelectric production. The image below demonstrates the nexus between water levels on the Colorado River system and energy production. The towers at the left are inlet towers that convey water to electric generators at Hoover Dam. As water levels decline as demonstrated by the white waterline on the right, there is at the same time less water available for the production of electricity by hydroelectric means.

The importance of the nexus between watershed levels, hydroelectric production, and regional economics was demonstrated in the California Energy Crisis of 2000-2001. A Department of Energy report on the crisis cites this among contributing factors:

*To meet its demand for power, California relies on about 7 to 11 gigawatts of out-of-state generation capability, of which a significant portion is hydroelectric capacity located in the northwestern United States. Reduced hydroelectric power generation caused by unusually low water levels in the northwest resulted in a reduction of power imports to northern California.*

This reduction in supply resulted in an increase in the cost of wholesale power to California customers which had economic impacts. The Department of Energy also said:

*The worst case is PG&E (Pacific Gas and Electric), which on April 6, 2001 filed for protection under Chapter 11 of the U.S. Bankruptcy Code. PG&E estimated that since June 2000 they have spent $9 billion for wholesale power with no reimbursement for those expenditures (referred to as unrecovered power costs).*

Water shortage on the Colorado River is extremely unlikely to result in conditions on the scale of the California Energy Crisis as there were many other contributing factors in addition to drought in the northwest. The California Crisis, nevertheless, is useful as an example that illustrates that a nexus exists between the ability of Phoenix to defer water draws from the Colorado, water levels on the Colorado, the ability to produce electricity by hydroelectric generation on the Colorado River, the availability of electricity in the southwest, the cost of electricity in the southwestern wholesale market, and regional economics. In short, the City's enhanced ability to keep water in the Colorado River system through the Project has a nexus to regional economics.

Source of DOE statements:
https://www.eia.gov/electricity/policies/legislation/california/subsequentevents.html

2. **New or innovative approaches:** Describe the extent to which the project uses new or innovative approaches, particularly water reuse and water recycling.

This Project will make water that has been previously injected into underground aquafers throughout the City available to customers who presently only have access to stored underground water in their vicinity. The new capabilities to access stored water will facilitate a new approach to resource supply management in Phoenix. These new facilities will serve to both provide water in the absence of sufficient Colorado River water and also to displace available Colorado River water with local groundwater in order to facilitate good management of the Colorado River water system.

Phoenix's efforts in this area have been recognized at the statewide level for its importance. In 2017, Arizona Forward awarded its prestigious Governor's Award for Arizona's Future to the City of Phoenix for its landmark 2017 agreement with the Gila River Indian Community to preserve endangered Colorado River water in Lake Mead. In all, Phoenix received nine awards at Arizona Forward's 37th Annual Environmental Excellence award. Under the agreement, Phoenix works with the Community to preserve 13 billion gallons of its annual portion of Colorado River water in Lake Mead, which helps preserve water levels in the dangerously over-allocated reservoir. The agreement will help Phoenix expand its underground water storage capacity and allow for more water to remain in Lake Mead during times of drought.

Moreover, Phoenix has entered into a well sharing agreement with Salt River Project (SRP). Under the first-of-its kind agreement, SRP has agreed to reserve capacity in its extensive system of wells for future use by Phoenix to recover long-term storage credits stored within the Salt River Project water service area. Water recovered through this partnership can be used anywhere within Phoenix's Water Service Area. This 40- year partnership with Salt River Project helps to ensure reliable water deliveries in the future during extreme drought and shortage conditions on the Colorado River. The infrastructure that is constructed by this Project will facilitate the pumping of water from wells in south Phoenix to north Phoenix. That water is made available for pumping by way of storage credits earned through this innovative agreement with SRP.

3. **Protection against extreme weather events:** Describe the extent to which the project (1) protects against extreme weather events, such as floods or hurricanes, or (2) helps maintain or protect the environment.

As a desert water utility, Phoenix Water Services infrastructure is built with extreme weather conditions in mind, particularly drought. The City uses reclaimed wastewater in lieu of other water supplies whenever possible. In fiscal year 2017-18, the City produced approximately 126,938 acre-feet of reclaimed wastewater at its wastewater treatment plants. The majority of the reclaimed wastewater was used by the Palo Verde Nuclear Generating Station for cooling reactors and by the Roosevelt Irrigation District and Buckeye Irrigation Company to irrigate crops. The City has been proactive securing and managing other water sources. The City has participated in water rights settlements with the Salt River Pima Maricopa, Fort McDowell and Gila River Indian Communities from which it has leased or been assigned approximately 22,323 acre-feet of Central Arizona Project Water annually. In addition to the groundwater supply listed above, the City has recharged excess supplies and as a result has accumulated long-term storage credits of 307,000 acre-feet and groundwater allowance credits of 3,699,500 acre-feet. Also, the Arizona Water Banking Authority has stored 1,789,000 acre-feet of water underground for drought protection in the Phoenix Active Management Area, of which the City would receive allocations if needed.

To date, Phoenix has been unable to access the long-term storage credits and groundwater allowance credits noted above due to a lack of wells and additional distribution methods in the System. The Project, which is the subject matter of this LOI, would make underground storage water throughout the Phoenix area available to customers in the northern part of the city in the event that drought made surface water from the Colorado River less available.

Use of underground water for service to the northern part of the city, rather than drawing on supplies from the Colorado River, provides a new tool for the management of Colorado River water system levels and environmental concerns related to decline in the river's water levels. Environmental concerns related to Colorado River water system levels include: threatened/endangered/sensitive fish ("listed fish"), nonlisted native fish, wetland and riparian habitats, and wildlife refuges.

4. **Serves energy exploration or production areas:** Describe the extent to which a project serves regions with significant energy exploration, development, or production areas.

   This Project allows the City to displace surface water from the Colorado River with water previously injected underground during periods when a surplus of surface water existed. This can be done to preserve water in the Colorado River system including reservoirs with hydroelectric production.

   While water must eventually be released in order to produce electricity, the storage of surplus water in Phoenix aquafers for future use to serve Phoenix customers at a time when there is a deficit of surface water can allow stored water in the Colorado River system to recover so that electricity can then be generated during periods when there is a coincidence of both peak electrical demand and shortage of electric generation capacity. Hydroelectric dams are particularly suited to addressing these short term needs for generation of electricity because of their ability to produce electricity nearly instantaneously upon demand. In contrast, other forms of electrical generation are not suited for managing peak-load demands and can only meet base-load demands. Most thermal production facilities such as coal and nuclear plants are not well suited to changing production to match consumption demands and it is most economical to operate them at constant production levels.
   The Project that is the subject of this LOI can contribute to the optimization of use of hydroelectric generation resources on the Colorado River.

5. **Serves regions with water resource challenges:** Identify the water resource challenge and the extent to which a project serves regions with significant water resource challenges, including the need to address (1) water quality concerns in areas of regional, national, or international significance; (2) water quantity concerns related to groundwater, surface water, or other resources; (3) significant flood risk; (4) water resource challenges identified in existing regional, state, or

multistate agreements; and (5) water resources with exceptional recreational value or ecological importance.

Arizona is currently in its 21st year of a long-term drought. Conditions are worsening and the Colorado River basin appears to be "aridifying." Because the Colorado River is over-allocated, shortage and cutbacks for its water users, including Phoenix, are inevitable. It is the responsibility of Phoenix Water Services to ensure certainty in the provision of safe, reliable water supplies in all foreseeable circumstances to its 1.7 million residents. This Project provides WSD with the ability to provide potable water to the northern part of Phoenix from new sources such as groundwater from wells in southern Phoenix. At present, there isn't sufficient infrastructure to transport groundwater from south Phoenix to north Phoenix.

There are an estimated 660,000 residents in northern Phoenix who may need access to groundwater located in south Phoenix at a future date when there are limitations on the distribution of Colorado River water. Because of the significant size of the effected population, there are benefits to both the metropolitan area and the whole state in the form of continued investment and a robust economy.

This project also helps to mitigate regional concerns. This Project, as stated, provides WSD with the ability to provide potable water to the northern part of Phoenix using new supply sources such as groundwater from wells in southern Phoenix. WSD is continuously looking for opportunities to enter into cooperative agreements with other entities in order to make the most efficient use of water resources. This can involve trading of water rights to surface water in exchange for long term storage credits that can be exercised at a later date in order to preserve surface water levels on the Colorado River. Trades can also include raw water for effluent. Phoenix currently exchanges reclaimed water for raw water rights with an irrigation district that irrigates non-food crops. The irrigation exchanges the irrigation district's rights to raw water for twice as much reclaimed water from Phoenix. The exchange is beneficial to both Phoenix and the irrigation district and Phoenix gains access to more raw water for delivery to the public and the irrigation district replaces its raw water rights with twice as much reclaimed water that can be used on non-food crops. More importantly, the exchanges make the best possible use of water resources. This project provides WSD with more flexibility to enter into agreements that yield the best potential benefits to parties in the region.

This Project has a connection to state and multi-state agreements as it has a relationship to the management of Colorado River water. The Project increases the City's ability to access groundwater which can allow it to reduce dependency on Colorado River water. There are many entities throughout various states that depend on Colorado River water and use of Colorado River water is controlled by a number of agreements among these various entities. There are consequently both inter-state and intra-state agreements that can be affected indirectly by the Project.

Further, there is exceptional recreational and ecological significance to maintaining water levels along the Colorado River. This Project can help Phoenix reduce decline on the Colorado River as it enables Phoenix to replace Colorado River water with groundwater. The Colorado River is important to wildlife both in and around the river. Endangered species found only on the Colorado River include the humpback chub, bonytail, Colorado pikeminnow, and razorback sucker. River levels must be maintained to protect these endangered species. The Colorado River is also used for recreational

purposes including boating and fishing both in the river itself and in the reservoirs along the river. Important recreational sites include Lake Meade, Lake Powell and Lake Havasu.

6. **Addresses identified priorities:** Describe the extent to which the project addresses identified municipal, state, or regional priorities.

The City has protected our fossil aquifers against over-pumping by banking Colorado River water underground in our aquifers so that it will be available during surface water shortages. Underneath Phoenix is a vast aquifer full of millions of acre-feet of Colorado River water previously banked underground, that can be used to meet future demands. Because surface water supplied by the CAP is not as available as was expected at the time of construction of CAP due to climate change, it is necessary to construct facilities to improve physical access to banked water in portions of our service territory that are normally dependent on Colorado River supplies.

Injection of surplus surface water into underground aquafers for the purpose of meeting future supply needs is a practice that is formally promoted by the State of Arizona. The policy is declared in Arizona Revised Statutes § 45-801.01

*The public policy of this state and the general purposes of this chapter are to:*

*1. Protect the general economy and welfare of this state by encouraging the use of renewable water supplies, particularly this state's entitlement to the Colorado river water, instead of groundwater through a flexible and effective regulatory program for the underground storage, savings and replenishment of water (emphasis added).*

This Project facilitates the distribution of stored underground water. Two state government bodies, noted below, have formed to promote and facilitate the practice of use of underground water storage:

The Arizona Department of Water Resources (ADWR) was formed to ensure long-term, reliable water supplies in Arizona. ADWR administers the Underground Water Storage and Recovery Program by issuing permits to allow persons with surplus supplies of water to store that water underground and recover it at a later time for the storer's use. ADWR also administers the requirements of the Underground Water Storage, Savings, and Replenishment Act, which further defines the Recharge Program.

The Arizona Water Banking Authority (AWBA) was established to increase utilization of the state's Colorado River entitlement and develop long-term storage credits for the state by storing or "banking" unused Colorado river water to be used in times of shortage. These water supplies help to benefit municipal and industrial users and communities along the Colorado River, fulfill the water management objectives of the state, store water for use as part of water rights settlement agreements among Indian communities, and assist Nevada and California through interstate water banking.

7. **Repair, rehabilitation, or replacement:** Describe the extent to which the project addresses needs for repair, rehabilitation or replacement of a treatment works, community water system, or aging water distribution or wastewater collection system.

   Improvements VII, VIII, and IX are replacing existing combined booster pump stations and pressure reducing valve facilities at the Deer Valley WTP. These facilities are at the end of the facilities' useful life. When the Program was analyzed, it was determined that the existing Improvement VII needed to be upgraded but, since the facilities share common piping, all of the facilities needed to be replaced. As such, the Project is addressing the replacement of critical infrastructure in addition to addressing the supply issue.

8. **Economically stressed communities:** Describe the extent to which the project serves economically stressed communities, or pockets of economically stressed rate payers within otherwise non-economically stressed communities.

   Not Applicable

9. **Reduces exposure to lead or emerging contaminants:** Describe the extent to which the project reduces exposure to lead or addresses emerging contaminants, including PFOA and PFAS, in the nation's drinking water systems.

   The Project does not reduce exposure to lead or address emerging contaminants in drinking water.

10. **Readiness to proceed:** Describe the readiness of the project to proceed toward development, including a demonstration by the prospective borrower that there is a reasonable expectation that the contracting process for construction of the project can commence by not later than 90 days after the date on which a Federal credit instrument is obligated for the project.

    Phoenix has approved funding for the design and construction of the overall Program. The City has contracted with the Program Manager, seven design engineers, and the seven CM@R contractors for the program. The design plans are expected to be complete by June 2020. Construction is expected to begin in the Fall of 2020 with construction completion expected by December 2022.

11. **Enables project to proceed earlier:** Describe the likelihood that assistance under WIFIA would enable the project to proceed at an earlier date than the project would otherwise be able to proceed.

    The City's 10-year Capital Improvement Plan is a $2.9 billion investment to support the mission of protecting public health and the environment. The Zone 3D and 4A Improvements Project is one of 229 projects in the CIP. A WIFIA loan financing 49% of Project cost is projected to save ratepayers more than $32 million in PV total debt service payments over the term of a 35-year loan. Phoenix is committed to ratepayer affordability and the savings afforded by the WIFIA loan both mitigate the financial burden on ratepayers and facilitate the accelerated implementation of other critical CIP projects that address the stated mission goals of the City.

12. **Financing plan:** Describe the extent to which the project financing plan includes public or private financing in addition to assistance under WIFIA.

    Projects are currently planned with funding by Water System bonds. The City of Phoenix Water Services Department owns all of the property being allocated to this project.

13. **Reduction of Federal assistance:** Describe the extent to which assistance under WIFIA reduces the contribution of Federal assistance to the project.

    Not Applicable.

## Section E: Contact Information

**1.** Primary point of contact

Name: Scot Obal
Title: Investment and Debt Manager
Organization: City of Phoenix Finance Department
Street Address: 251 W. Washington Street
City/State/Zip: Phoenix, AZ 85003
Phone: 602-534-2168
E-mail: scot.obal@phoenix.gov

**2.** Secondary point of contact

Name: Kathleen Gitkin
Title: City Treasurer
Organization: City of Phoenix Finance Department
Street Address: 251 W. Washington Street
City/State/Zip: Phoenix, AZ 85003
Phone: 602-495-0732
E-mail: Kathleen.gitkin@phoenix.gov

## Section F: Certifications

*Please sign in the appropriate space and submit a scanned version of the signature page to EPA with your electronic Letter of Interest submission.*

1. *National Environmental Policy Act:* The prospective borrower acknowledges that any project receiving credit assistance under this program must comply with all provisions of the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.) and that EPA will not approve a loan for a project until a final agency determination, such as a Categorical Exclusion (CATEX), Finding of No Significant Impact (FONSI), or a Record of Decision (ROD), has been issued.
2. *American Iron and Steel:* The prospective borrower acknowledges that any project receiving credit assistance under this program for the construction, alteration, maintenance, or repair of a project may only use iron and steel products produced in the United States and must comply with all applicable guidance.
3. *Prevailing Wages*: The prospective borrower acknowledges that all laborers and mechanics employed by contractors or subcontractors on projects receiving credit assistance under this program shall be paid wages at rates not less than those prevailing for the same type of work on similar construction in the immediate locality, as determined by the Secretary of Labor, in accordance with sections 3141-3144, 3146, and 3147 of Title 40 (Davis-Bacon wage rules).
4. *Lobbying:* Section 1352 of Title 31, United States Code provides that none of the funds appropriated by any Act of Congress may be expended by a recipient of a contract, grant, loan, or cooperative agreement to pay any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, or an employee of a Member of Congress in connection with the award or making of a Federal contract, grant, loan, or cooperative agreement or the modification thereof. The EPA interprets this provision to include the use of appropriated funds to influence or attempt to influence the selection for assistance under the WIFIA program.

   WIFIA prospective borrowers must file a declaration: (a) with the submission of an application for WIFIA credit assistance; (b) upon receipt of WIFIA credit assistance (unless the information contained in the declaration accompanying the WIFIA application has not materially changed); and (c) at the end of each calendar quarter in which there occurs any event that materially affects the accuracy of the information contained in any declaration previously filed in connection with the WIFIA credit assistance.

   The undersigned certifies, to the best of his or her knowledge and belief, that:

   1. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
   2. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement,

the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

3. The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.
   This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

5. *Debarment:* The undersigned further certifies that it is not currently: 1) debarred or suspended ineligible from participating in any Federal program; 2) formally proposed for debarment, with a final determination still pending; or 3) indicted, convicted, or had a civil judgment rendered against it for any of the offenses listed in the Regulations Governing Debarment and Suspension (Governmentwide Nonprocurement Debarment and Suspension Regulations: 2 C.F.R. Part 180 and Part 1532).
6. *Default/Delinquency:* The undersigned further certifies that neither it nor any of its subsidiaries or affiliates are currently in default or delinquent on any debt or loans provided or guaranteed by the Federal Government.
7. *Other Federal Requirements*: The prospective borrower acknowledges that it must comply with all other federal statutes and regulations, as applicable. A non-exhaustive list of federal cross-cutting statutes and regulations can be found at: https://www.epa.gov/wifia/wifia-resources#complianceanchor.
8. *Signature:* By submitting this letter of interest, the undersigned certifies that the facts stated and the certifications and representations made in this letter of interest are true, to the best of the prospective borrower's knowledge and belief after due inquiry, and that the prospective borrower has not omitted any material facts. The undersigned is an authorized representative of the prospective borrower.

Signature: [redacted]

Date Signed: 7/3/2019

Name: Denise M. Olson
Title: Financial Officer
Organization: City of Phoenix Finance Department
Street Address: 251 W. Washington Street
City/State/Zip: Phoenix, AZ 85003
Phone: 602-262-7168
E-mail: denise.olson@phoenix.gov

## Section G: Notification of State Infrastructure Financing Authority

*Please sign in the appropriate space and submit a scanned version of the signature page to EPA with your electronic Letter of Interest submission.*

By submitting this letter of interest, the undersigned acknowledges that EPA will (1) notify the appropriate State infrastructure financing authority in the State in which the project is located that the prospective borrower submitted this letter of interest; and (2) provide the submitted letter of interest and all source documents to that State infrastructure financing authority.

Prospective borrowers that **do not want their letter of interest and source documents shared with the State infrastructure financing authority** in the state in which the project is located may opt out by initialing here _[redacted]_.

If a prospective borrower opts out of sharing a letter of interest, EPA will still notify the State infrastructure financing authority within 30 days of receiving a letter of interest.

Signature: _[redacted]_

Name: Denise M. Olson

Date Signed: 7/3/2019

# KEY DEFINITIONS

(a) *Administrator* means the Administrator of EPA.

(b) *Applicant* means the entity submitting the application for WIFIA credit assistance. Only prospective borrowers that are invited to submit a WIFIA application become applicants. The following entities are eligible to receive credit assistance: a corporation, a partnership, a joint venture, a trust, a Federal, State, or local government, a tribal government or consortium of tribal governments, and a State infrastructure financing authority.

(c) *Community water system* has the meaning given the term in section 1401 of the Safe Drinking Water Act (42 U.S.C. 300f).

(d) *Credit assistance* means a secured loan or loan guarantee under WIFIA.

(e) *Credit agreement* means a contractual agreement between EPA and the prospective borrower (and the lender, if applicable) that formalizes the terms and conditions established in the term sheet (or conditional term sheet) and authorizes the execution of a secured loan or loan guarantee.

(f) *Eligible project costs* mean amounts, substantially all of which are paid by, or for the account of, an prospective borrower in connection with a project, including the cost of:
   (1) Development-phase activities, including planning, feasibility analysis (including any related analysis necessary to carry out an eligible project), revenue forecasting, environmental review, permitting, preliminary engineering and design work, and other preconstruction activities;
   (2) Construction, reconstruction, rehabilitation, and replacement activities;
   (3) The acquisition of real property or an interest in real property (including water rights, land relating to the project, and improvements to land), environmental mitigation (including acquisitions pursuant to section 33 U.S.C. §3905(7)), construction contingencies, and acquisition of equipment; and
   (4) Capitalized interest necessary to meet market requirements, reasonably required reserve funds, capital issuance expenses, and other carrying costs during construction.

(g) *Federal credit instrument* means a secured loan or loan guarantee authorized to be made available under WIFIA with respect to a project.

(h) *Investment-grade rating* means a rating category of BBB minus, Baa3, bbb minus, BBB (low), or higher assigned by a nationally recognized statistical rating organization (NRSRO) to project obligations offered into the capital markets.

(i) *Iron and steel products* means the following products made primarily of iron or steel: lined or unlined pipes and fittings, manhole covers and other municipal castings, hydrants, tanks, flanges,

pipe clamps and restraints, valves, structural steel, reinforced precast concrete, and construction materials.

(j) *Nationally Recognized Statistical Rating Organization (NRSRO)* means a credit rating agency identified and registered by the Office of Credit Ratings in the Securities and Exchange Commission.

(k) *Project* means:

(1) 1 or more activities that are eligible for assistance under section 603(c) of the Federal Water Pollution Control Act (33 U.S.C. 1383(c)), notwithstanding the public ownership requirement under paragraph (1) of that subsection.

(2) 1 or more activities described in section 1452(a)(2) of the Safe Drinking Water Act (42 U.S.C. 300j–12(a)(2)).

(3) A project for enhanced energy efficiency in the operation of a public water system or a publicly owned treatment works.

(4) A project for repair, rehabilitation, or replacement of a treatment works, community water system, or aging water distribution or waste collection facility (including a facility that serves a population or community of an Indian reservation).

(5) A brackish or sea water desalination project including chloride control.

(6) A managed aquifer recharge project, a water recycling project, or projects to provide alternative water supplies to reduce aquifer depletion.

(7) Acquisition of real property or an interest in real property—

(A) If the acquisition is integral to a project described in paragraphs (1) through (5); or

(B) Pursuant to an existing plan that, in the judgment of the Administrator or the Secretary, as applicable, would mitigate the environmental impacts of water resources infrastructure projects otherwise eligible for assistance under this section.

(8) A project to prevent, reduce, or mitigate the effects of drought, including projects that enhance the resilience of drought-stricken watersheds.

(9) A combination of projects, each of which is eligible under paragraph (1) or (2), for which a State infrastructure financing authority submits to the Administrator a single application.

(10) A combination of projects secured by a common security pledge, each of which is eligible under paragraph (1), (2), (3), (4), (5), (6), or (7), for which an eligible entity, or a combination of eligible entities, submits a single application.

(l) *Prospective borrowe*r means an entity that is contemplating or is in the process of undertaking the WIFIA application process, or an entity that has undertaken these activities on behalf of another entity. The following entities are eligible to receive credit assistance: a corporation, a partnership, a joint venture, a trust, a Federal, State, or local government, a tribal government or consortium of tribal governments, and a State infrastructure financing authority. Prospective borrowers become applicants when they are invited to apply for WIFIA credit assistance.

(m) *Public entity* means:

(1) a Federal, State, or local Governmental entity, agency, or instrumentality; or

(2) a Tribal Government or consortium of Tribal Governments.

(n) *Publicly sponsored* means the prospective borrower can demonstrate, to the satisfaction of the Administrator that it has consulted with the affected State, local or Tribal Government in which the project is located, or is otherwise affected by the project, and that such government supports the proposed project. Support can be shown by a certified letter signed by the approving municipal department or similar agency, mayor or other similar designated authority, local ordinance, or any other means by which local government approval can be evidenced.

(o) *Small Community* means a community with a population of no more than 25,000 individuals.

(p) *State* means any one of the fifty states, the District of Columbia, Puerto Rico, or any other territory or possession of the United States.

(q) *State infrastructure financing authority* means the State entity established or designated by the Governor of a State to receive a capitalization grant provided by, or otherwise carry out the requirements of, title VI of the Federal Water Pollution Control Act (33 U.S.C. 1381 et. seq.) or section 1452 of the Safe Drinking Water Act (42 U.S.C. 300j–12).

(r) *Term sheet* means a contractual agreement between EPA and the project sponsor (and the lender, if applicable) that sets forth the key business terms and conditions of a Federal credit instrument. Execution of this document represents a legal obligation of budget authority.

(s) *Treatment works* has the meaning given the term in section 212 of the Federal Water Pollution Control Act (33 U.S.C. 1292).

(t) *WIFIA* means the Water Infrastructure Finance and Innovation Act of 2014, Pub. L. 113-121, 128 Stat, 1332, codified at 33 U.S.C. §§ 3901-3914.